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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,678	03/23/2001	Woo Sik Yoo	M-9087 US	5755

7590 04/20/2004

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EXAMINER

DONG, DALEI

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Applicati n No. 09/815,678	Applicant(s) YOO, WOO SIK <span style="float: right;">er</span>	
	Examiner Dalei Dong	Art Unit 2879	

-- The MAILING DATE of this communication appears on th cover sh t with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 23-54 is/are pending in the application.
- 4a) Of the above claim(s) 23-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 33-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,529,208 to Frungel.

Regarding to claims 33-37, 45-46 and 54, Frungel discloses in Figure 1, "the lamps 1a to 1d are associated with reflectors 6a, 6b, 6c and 6d. As indicated there may thus be obtained an elongated scope of lighting in the lighting fields 7a, 7b, 7c and 7d. Thus it is possible for instance to illuminate a row of houses in a uniform manner for the purposes of a wide-angle shot. In accordance with the teachings of the invention the lamps 1a and 1d are provided with a different composition of discharge gas and a different pressure for the gas from the composition and pressure used in the lamps 1b and 1c *adjustment of the pressure within the lamp*. For this purpose the lamps may be connected with their inlets or other gas ducts to adjustable pressurized gas-containers *may be connected to other gas ducts thus may have first and second ends*. In the embodiment shown the inlets 8b and 8c are fed by a common conduit 8f and the two inlets 8a and 8b are fed from the conduit 8e" (column 2, line 29-43).

Frungel also discloses in Figure 1, "in order to modify the gas contents of the lamps 1a, 1b, 1c and 1d a control device 10 is provided which is connected with the two conduits 8e and 8f. The control device 10 is charged from three pressure gas containers 11, 12 and 13 of which for instance one may contain helium gas, the other krypton and the third argon, all under high pressure. The three pressurized gas containers 11, 12 and 13 are provided in conventional manner with manometers 14, 15, 16 and with valves 17, 18 and 19. The three valves 17, 18 and 19 control three feed ducts 21, 22 and 23 connected to the Control device 10. The ducts lead to pairs of valves 31, 41 and 32, 42 and 33, 43. At the outlet end the valves 31, 32 and 33 are connected in series with the conduit 8e. In corresponding manner there is a connection in series between the three valves 41, 42 and 43 and on the other hand the duct 8f. It is therefore possible to connect the two conduits 8e and 8f by suitable operation of the valves 31, 32, 33, 41, 42, 43 to a source of helium gas, krypton, argon. The amount of gas pressure in the two conduits 8e and 8f can be controlled by means of the manometers 34 and 44. To lower the gas pressure or to evacuate the lamp containers entirely, there are provided two release valves 35 and 45 *outlet valves*" (column 2, line 44-66).

Frungel further discloses in Figure 1, "the gas pressure in the discharge space can for instance be varied as follows. After first draining the gas from a previous operation, the valves 35 and 45 are closed. If it is intended to fill the lamps 1a and 1d with, for instance, high pressure helium gas and the lamps 1b and 1c with high pressure krypton, one proceeds as follows: Only the valve 31 of the series of valves 31, 32, 33, 41, 42 and 43 is opened. Thus helium under pressure can enter the conduit 8e from the pressurized

gas container 11. Upon reaching the required pressure, which is controlled by the 5 manometer 34, the valve 31 is closed again. It is also possible to make a correction in case the gas pressure has risen to too high a level by opening the release valve 35 *removing the first gas*. The valve 42 is then opened to fill the discharge lamps 1b and 1c with krypton under pressure *while removing the first gas for example helium, a second and different gas krypton can be simultaneously enter the conduit by opening valve 42*. The krypton gas 10 can thus enter into conduit 8f from the pressure container 12. The gas pressure in this case is controlled by the manometer 44. Upon reaching of the desired pressure, the valve 42 is again closed. More precise adjustment of the pressure is possible also in this case by means of 15 the release valve 45" (column 2, line 67 to column 3, line 15).

Frungel further yet discloses in Figure 1, "this type of operation permits to give the emission of the lamps 1a and 1d a more reddish shading and accordingly to cause a better illumination of certain parts of the object since reddish light has a greater penetration 20 through any kind of haze. A filling of the lamps 1b and 1c on the other hand with krypton will result in a more, white illumination similar to the use of xenon. In the same manner it is possible to use argon which can be admitted by means of valves 33 and 43 from gas container 13" (column 3, line 16-25).

Frungel further yet discloses in Figure 1, "it is also possible to fill up all lamps with the same type of gas by simultaneous opening of the valve pairs 31, 41 and 32, 42, and 33, 43. It is furthermore possible to vary the pressures in the two conduits 8e and 8f by manipulation of the two valves of each pair of valves. Thus 30 a variation of the light

intensity will result in spite of the fact that all of the lamps 1a, 1b, 1c and 1d are connected to the same discharge current" (column 3, line 26-33).

Frungel discloses the claimed invention except that a second valve associated with the second end instead of a second valve (release valve 35 and 45) associated with the middle of the lamp. Frungel discloses, "in accordance with the teachings of the invention of the lamps 1a and 1d are provided with a different composition of discharge gas and a different pressure of the gas from the composition and pressure used in the lamps 1b and 1c. For this purpose the lamps may be connected with their inlets or other gas ducts to adjustable pressurized gas containers" (column 2, lines 35-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have inlet conduit associated with a first end of the hollow tube or discharge container while other gas ducts associated with the second end of the hollow tube or discharge container in order to facilitate pressure adjustment within the hollow tube or discharge container thus emit the desired lighting characteristics. Frungel shows that the second valve placed at the second end is an equivalent structure and performs the equivalent function known in the art. Therefore, because these two different placement of second valves were art-recognized equivalent at the time the invention was made, it would have been obvious to one of ordinary skill in the art to have placed the second valve at the second end of the lamp in order to accommodate the design specification.

Regarding to claims 38-44 and 47-53, Frungel discloses the claimed invention except for various shapes claimed in the claims. It is old and well known in the art to

shape the lamp into different shapes in order to accommodate the design specification.

Further, Applicant does not establish the criticality of the shape of the lamp to the invention and hence, the different shape of the lamp can be determined by routine experimentation by one having ordinary skill in the art. Furthermore, it has been held that to be entitled to weight in method claims the recited-structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a structure of a particular structure. *Ex Parte Pfeiffer*, 1962 C.C. 408 (1961).

### ***Response to Arguments***

3. Applicant's arguments filed January 8, 2004 have been fully considered but they are not persuasive.

In response to Applicant's primary argument that the Frungel reference does not allow substantially simultaneous gas flow into and out from the hollow tube; Examiner asserts that it is possible to open the release valve or the outlet valve and substantially simultaneously open the inlet valve to allow substantially simultaneous gas flow into and out from the hollow tube. Albeit, Frungel reference discloses using the same conduits to fill and evacuate lamps, however, by opening outlet valve and inlet valves simultaneously the gases are able to substantially simultaneously flow into and out of the lamp utilizing the same conduit. Frungel also discloses the adjusting of the gas pressure within the lamp and thus it is feasible for different type of gas to be substantially simultaneously flowing into and out of the lamp while the gas is released from the lamp in order to obtain the desired pressure.

Art Unit: 2879

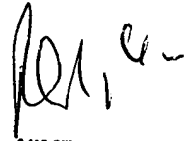
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (571)272-2370. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571)272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.D.  
April 12, 2004

  
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